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Beaver Bonspiel IX Round 7

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Tossups

1. It saw the addition of two phonetic syllabaries, and the introduction of the Shingon sect by the Buddhist sage Kukai. The Hogen Disturbance in the 12th century broke the peace of the capital, established by Emperor Kammu in modern-day Kyoto. *The Tale of the Heike* provides an account of its end in the Gempei War with the victory of Minamoto Yoritomo. FTP name this period which saw the rise of the Fujiwara family and the writings of Sei Shonagon and Lady Murasaki.

Answer: Heian period (accept Fujiwara before it's mentioned)

2. His castle, Hautdesert, lies near the chapel his guest is seeking, and his hunting expeditions are paralleled by his wife's attempts to seduce that guest. First seen requesting a Christmas game while holding a bough of holly and a battleaxe, his real name is Bertilak. Morgan le Fay gives him his power and sends him to frighten Guinevere and test Arthur's knights. FTP name this colorful knight who survives his beheading by Gawain.

Answer: the Green Knight (accept Bertilak or Bercilak or Bernlak of Hautdesert before "his real name is Bertilak.")

3. Electrons in their interiors have long mean free paths, making heat conduction efficient. Their radius is roughly proportional to one over the cube root of their mass, and they have a characteristic density of about 100 million kilograms per cubic meter. They're supported by degeneracy pressure, and have an upper mass limit corresponding to ultra-relativistic electrons. Sirius B is an example of, FTP, what stellar end-state which must have a mass less than the Chandrasekhar limit?

Answer: white dwarf stars or white dwarves

4. The son of the Mighty Molecule, he abandons his epic novel *American Disillusionment*, and marries Rosa Luxemburg Saks after breaking off his affair with Tracy Bacon. Most of a chapter in Dr. Wertham's *Seduction of the Innocent* talks about his work, including *The Lumberjack* and *The Rectifier*. Better known for *The Escapist*, FTP, name this character whose amazing adventures with Joseph Kavalier are told in a Michael Chabon novel.

Answer: Sammy Clay or Klayman

5. His *Young Ladies of the Village* depicts his three sisters giving alms to a cowherd, while the pornographic *The Sleepers* shows two lesbians. *Peasants of Flagey Returning from the Fair* shows this artist's father on horseback, and a man with a pig on a leash. George Sand and Charles Baudelaire appear in his 1855 *The Painter's Studio*. FTP, name this artist of *A Burial at Ornans* and *The Stonebreakers*.

Answer: Jean Desire Gustave Courbet

6. Only mammals and birds possess the juxtamedullary type, which provide the ability to excrete urine that is hyperosmotic to body fluids. These structures process fluid filtrate, eventually sending it out through the distal convoluted tubule into a collecting duct. The cortical variety have reduced loops of Henle and are mostly confined to the renal cortex. Beginning with Bowman's capsule, FTP name these functional units of the kidney.

Answer: nephrons

7. In 1993, his debut season, he pitched nine games for the Texas Rangers before being moved to the Florida Marlins where he was a teammate of save leader Bryan Harvey and Trevor Hoffman. In 1994 he led the Marlins in saves and repeated that feat every season through 1997. After that season he moved to his current team where he ranks second in career saves behind Rod Beck. FTP name this closer for the San Francisco Giants.

Answer: Robb Nen

8. Its creator wants it to be the centerpiece of a special exhibition in the Rue de Sèze, but is dissuaded by its owner. The masterpiece of Basil Hallward, it is created while Lord Henry delivers a panegyric on youth. Its owner realizes that his wish has been fulfilled on the night of Sybil Vane's suicide, when he notices the expression of the mouth. FTP, name this title painting which absorbs the sins and aging of its subject in an Oscar Wilde novel.

Answer: The picture of Dorian Grey (accept equivalents, since the question doesn't ask for the specific title)

9. In this state, the lowest court is known as the Supreme Court, and the highest is called the Court of Appeals. In 1817, this state's governor, Daniel Tompkins, became Vice President under James Monroe. Tompkins was preceded in that office by two others from his home state, which has produced a total of eleven VPs. Presidential candidates from this state include Charles Evans Hughes, DeWitt Clinton, and Millard Fillmore. FTP name this state currently governed by George Pataki..

Answer: New York

10. The Goring Gap near Reading divides its upper and lower basins. Its source is located at Seven Springs in the Cotswold Hills, while it empties into a 5 _ mile-wide mouth at The Nore, located on the North Sea. For ten points, what 210-mile river flows past both Oxford and London, making it England's most important river?

Answer: River Thames (TEMS)

11. It shows two major velocity discontinuities which are believed to be the result of phase changes to perovskite and spinel structures.. Its dominant minerals include olivine and pyroxene. Bounded below by the D" (read: D double prime) layer, geodynamic evidence suggests that it convects as a whole. Bounded above by the Moho, FTP name this region of the Earth between the crust and the core.

Answer: mantle

12. The name's the same. One is a song with the lyrics "The sound of strangers sending nothing to my mind,/ Just another mad mad day on the road," while the movie is loosely based on the director's fatal relationship with actress Rebecca Schaeffer. FTP, identify this shared title of a song off *Exile on Main Street* by the Rolling Stones and a 2002 movie starring Jake Gyllenhaal, Susan Sarandon, and Dustin Hoffman.

Answer: Moonlight Mile

13. On a boat from Pola, he is disgusted at the sight of an old man trying to look young, but later he begins using hair dyes and facial creams. Several times he eats strawberries, a symbol of his gradual dissolution. He rides with an unlicensed gondolier into a city which is soon afterwards hit by cholera, and stays in the same hotel as a Polish family with a beautiful boy named Tadzio. FTP name this protagonist of *Death in Venice*.

Answer: Gustave von Aschenbach

14. After taking the throne six days after her father's death, she was sent to France by Mary of Guise because of her betrothal to Francis II. The couple was crowned in 1559, and her major counselors included William Maitland and the Earl of Moray. Despite being Catholic, she consented to laws against her religion. In an attempt to gain the English throne, she married her cousin Henry Stuart, Lord Darnley, but he was murdered two years later. For ten points, identify this Scottish ruler, later executed at Fotheringay Castle on order of Elizabeth I.

Answer: Mary, Queen of Scots

15. Behind the second pylon lies the Great Hypostyle Hall, which could hold the entirety of the cathedral of Notre Dame. Its original name was Ipet-isut, meaning either "the most select of places" or "the place where tribute was brought." Located near Thebes, it was home to a cult of Amun. FTP, name this complex of temples which became the religious center of Egypt during the New Kingdom.

Answer: Karnak

16. Disguised as a lute player, he uses a poisoned flower to kill the pimp Pilia-Borza and his prostitute Bellamira, but the poison only takes effect after they reveal to the governor the role that he played in collaboration with his slave Ithamore in the duel between Lodowick and Mathias . His treachery begins after his mansion is turned into a convent, which his daughter Abigail eventually enters, and ends when Ferneze foils his attempt to kill Turkish governor Calymath. FTP, name this Christopher Marlowe title character, a Christian-hating resident of a Mediterranean island.

Answer: the Jew of Malta (accept Barabas)

17. A noted London doctor and author of *The Chains of Slavery* in the 1770s, his failure to be elected to the Académie des Sciences seems to have given him a "martyr complex," since he believed himself a greater scientist than Newton. He went into hiding in 1790 after being sentenced to prison for declaring that France could solve its problems by beheading some 500 counter-revolutionaries, and his newspaper *A Friend of the People* helped awaken class consciousness in the Parisian masses. FTP, name this Montagnard whom Charlotte Corday assassinated in his bathtub.

Answer: Jean-Paul Marat

18. Probably the son of Cephisodotus, his contemporaries include Scopas and Lysippos. His *Eros of Thespieae* has been lost, but copies of his *Apollino* and *Silenus and Dionysus* exist. His statue of a satyr in the Capitoline Museum is celebrated in Hawthorne's *The Marble Faun*. FTP name this Attic sculptor of the *Aphrodite of Cnidus* and *Hermes with the Infant Dionysus*.

Answer: Praxiteles

19. Niels Bohr's brother Harald developed the notion of a function "almost" satisfying this property, and Floquet theory deals with the solution of ordinary differential equations with coefficients that do satisfy it. In quantum mechanics, when the the spatial variation of the potential has this property, such as in a crystal lattice, Bloch waves occur as solutions to the wave

equation. Functions of this type can be expanded in a Fourier series. FTP, name this class of functions which repeat after some characteristic length.

Answer: periodic

20. Its origins are traced to groups of penitents known as zuhhd. Two central concepts are tawakkul, the total reliance on God, and dhikr [THIKR], the perpetual remembrance of God. The name first appeared in the 8th century CE, probably in connection with the coarse wool worn by many ascetics. Literary exponents include Idries Shah and the poet Rumi. FTP, name this mystical movement within Islam.

Answer: Sufism or Tasawwuf

21. Name's the same: a lord of Sicilia married to Paulina, and a general who was made governor of Phrygia. The lord becomes convinced that Polixenes and Hermione have had an adulterous affair; the general was a member of the Diadochoi whose son Demetrius laid siege to Rhodes. FTP give this shared name of the lord who exits pursued by a bear in *The Winter's Tale*, and the loser at the battle of Ipsus, a one-eyed general under Alexander the Great.

Answer: Antigonus

22. This man, born in Albany, practiced law in Utica and became district attorney there in 1850. Originally a Whig, he was elected to Congress as a Republican in 1858 and joined the Radical Republicans in opposition to Andrew Johnson. Arguing for greater senatorial control of federal patronage he clashed with president Hayes. In 1880 his faction favored the nomination of Grant over James Garfield, but the nomination was defeated. FTP name this political leader who secured the nomination of his protégé Chester Arthur as Vice President, a leader of the Stalwarts and opponent of James G. Blaine.

Answer: Roscoe Conkling

23. The main character looks forward to a goodnight kiss from his mother, but also dreads it as the beginning of a sleepless night. The first in a series, it begins with a story of the main character's experiences in the town of Combray. His recollections include meeting the author Bergotte, Charles' wife Odette and daughter Gilberte. More famous are Marcel's memories of a spoon and eating a madeleine. FTP, identify this first book in Proust's *Remembrance of Things Past*.

Answer: Swann's Way or Du côté de chez Swann

24. Its predictions depend on the steric number of the central atom, which does not differentiate between single, double, and triple bonds. It does not account for the fact that bond angles in Group V and VI hydrides are so close to right angles. For a steric number of 5 and 4 bonding pairs it predicts a seesaw geometry with the lone pair in an equatorial position. FTP, name this theory that predicts the bent structure of water molecules.

Answer: VSEPR (often pronounced vesper) or valence shell electron-pair repulsion Theory (prompt on "valence theory")

25. He wrote books such as *The Comparative Anatomy of Angels*, and a satirical proof that the Moon is made of iodine, under the pseudonym Dr. Mises. He sustained eye injuries from looking at the Sun too much while studying after-images, but is better known for his reformulation of Weber's law of just-noticeable difference, which appeared in *Elements of Psychophysics*. FTP name this psychologist who stated that perceived stimulus intensity varies logarithmically with stimulus intensity.

Answer: Gustav Fechner

26. If you are killed by a thunderbolt, contagious disease, leprosy, or water, you're in luck: this god will receive you in a special paradise. Presiding over the third sun, his wife is sometimes given as Xochiquetzal (pron. sho-chee-KAY-tzall), or more commonly Chalchiuhtlicue (pron. chal-chee-weetl-EE-kway). Every year many children were drowned as sacrifices to this counterpart of the Mayan Chac. FTP name this Aztec god of the south, agriculture, and rain.

Answer: Tlaloc

Bonus Questions

1. Name the following plays of Aeschylus FTPE.

a) Polyneices brings the title group of champions against the title city, and Eteocles appoints his own champions to guard the gates.

Answer: *The Seven Against Thebes* (*Hepta Epi Thebais*)

b) In this second play in Aeschylus's Oresteia trilogy, Orestes kills Aegisthus and Clytemnestra.

Answer: *The Choephore* or *The Libation Bearers*

c) Set on a mountain in the Caucasus, the title character is visited by Io and Ocean, and explains that his punishment is for his gift of fire to man.

Answer: Prometheus Bound(Prometheus Desmotes)

2. Answer the following marginally related questions FTPE.

a) This man, elected to the US Senate in 1976, is the longest tenured Senator in the history of Indiana.

Answer: Richard ``Dick" Lugar

b) In this short novel, Carlson's Lugar is used to shoot the swamper's dog and one of the main characters.

Answer: Of Mice and Men

c) A Weird Al song tells of how this man went crazy and, among other things, shot one of his nine enslaved beasts with an old German Lugar.

Answer: Santa Claus (accept alternatives eg Saint Nicholas)

3. Identify the following Pre-Columbian Mesoamerican civilizations, FTP each:

a) According to tradition, this group, centered in Tollan, sacked the city of Teotihuacan under the leadership of Mixcoatl in AD 900.

Answer: Toltec

b) Centered in the Valley of Oaxaca around the city of Monte Alban, this group seems to have flourished about 2,000 years ago.

Answer: Zapotec

c) Members of this first elaborate pre-Columbian civilization lived at sites like San Lorenzo and La Venta and built colossal stone heads.

Answer: Olmec

4. Answer the following about DNA replication FTPE.

a) This experiment used E. coli cultured on a medium containing a heavy isotope of nitrogen to show that DNA replication is semiconservative.

Answer: Meselson-Stahl (full names: Matthew Meselson and Franklin Stahl)

b) During replication, the lagging strand is first synthesized as a series of these segments.

Answer: Okazaki fragments

c) The Okazaki fragments are joined into a single DNA strand by this protein.

Answer: DNA ligase

5. Answer the following about a composer FTPE.

a) Prior to going deaf as a result of syphilis, this nationalist Czech composer wrote such works as the string quartet *From My Life* and the opera *The Bartered Bride*.

Answer: Bedrich Smetana

b) The best known of Smetana's orchestral works is this cycle of six symphonic poems, which includes *Vysehrad*, and *From Bohemia's Fields and Forests*.

Answer: Ma Vlast or My Country or My Fatherland

c) This most frequently heard portion of *Ma Vlast* follows the course of the title river as it flows towards Prague.

Answer: River Moldau or Vltava

6. Given a list of ancient cities, name the country in which they are presently located FTPE.

a) Nineveh, Ashur, Nimrud

Answer: Iraq

b) Lutetia, Lugdunum, Arelate

Answer: France

c) Camulodunum, Eboracum, Mancunium

Answer: England or The United Kingdom or Great Britain

7. Identify the author, 30-20-10.

30) In the dedication to his verse drama *Persiles and Sigismunda*, written four days before his death, he quotes the ballad lyric, "one foot already in the stirrup."

20) *Rinconete y Cortadillo* (pron. REEN-cone-eh-teh EE cor-ta-DEE-yo) and *El Licenciado Vidriera* (pron. EL lee-sen-seeAH-doh VEE-dree-err-ah) are two of his Novelas Ejemplares (pron. noh-VEL-as eh-hem-PLAR-es).

10) His most famous work features the horse Rocinante and the title character's beloved Dulcinea.

Answer: Miguel de Cervantes y Saavedra

8. Identify these types of crystal lattices FTP each:

a) The alkali metals crystallize in this cubic structure at atmospheric pressure. Each unit cell contains two lattice points,

including one at the center of the cube, and it has a packing fraction of 0.68.

Answer: body-centered cubic or bcc

b) The densest crystal packing can be achieved with face-centered cubic structure or this close-packed system. Like the face-centered cubic structure, it has a packing fraction of 0.74.

Answer: hexagonal close-packed or hcp

c) In this crystal structure the lattice constants a , b , and c are all distinct, as are the internal angles, which are generally denoted alpha, beta, and gamma.

Answer: triclinic

9. FTPE, answer the following about Alexander of Hale, also known as Doctor Irrefragibilis.

a) Alexander's principal work, the *Summa Universae Theologiae*, greatly influenced the arrangement and method of this man's *Summa Theologica*.

Answer: St. Thomas Aquinas

b) Alexander's *Summa* frequently quotes this Persian commentator on Aristotle, whose other works include *The Book of Healing* and *The Canon of Medicine*.

Answer: Avicenna or Abu Ali al-Husain ibn Abdallah ibn Sina

c) Alexander wrote a commentary on this Parisian bishop's important *Four Books of Sentences*.

Answer: Peter (or Pierre, or Petrus) Lombardus

10. Name these places from the life and times of Julius Caesar, FTPE.

a) Caesar is supposed to have said "alea jacta est," or "the die is cast," when he crossed this river in 49 BCE with his forces, effectively declaring war on Pompey and the Senate.

Answer: Rubicon

b) Near this ancient city in Thessaly, Caesar decisively defeated Pompey's larger army in 48 BCE. Lucan's epic *Bellum Civile* describes the battle.

Answer: Pharsalus

c) At the end of the Gallic Wars, the chieftan Vercingetorix shut himself up in this fortress, which Caesar surrounded with double-sided fortifications, successfully holding off a relief force while besieging the forces in the city.

Answer: Alesia

11. Name these 20th century photographers, FTPE.

a) After covering the rise of Hitler and the invasion of Ethiopia, he became one of the first four photographers hired by *Life* magazine, for whom he took a famous picture of a sailor kissing a random nurse in Times Square on VJ Day.

Answer: Alfred Eisenstaedt

b) A founding member of Group f/64, his landscape photographs include *Moonrise*, *Hernandez*, *New Mexico* and *Monolith, The Face of Half Dome*.

Answer: Ansel Adams

c) A staff photographer of the Farm Security Administration, her photographs include *White Angel Bread Line* and *Migrant Mother*.

Answer: Dorothea Lange

12. Identify these pieces of early American legislation FTPE.

a) This bill, a follow-up to the Non-Intercourse Act, was passed in 1810, and helped lead to the War of 1812.

Answer: Macon's Bill Number 2

b) This precursor of the Non-Intercourse act was passed in 1807, and made Thomas Jefferson a very unpopular man.

Answer: Embargo Act of 1807

c) This act passed by a lame duck Federalist congress caused an outcry from Jeffersonians, and provided for the "midnight appointments" of officials like William Marbury.

Answer: Judiciary Act of 1801

13. Name these early 20th century Asian writers FTPE.

a) His short stories include *The Handkerchief*, *In a Grove*, and *Rashomon*. He is the namesake of Japan's most prestigious literary award.

Answer: Ryunosuke Akutagawa or Chokodo Shujin

b) His works include the play *Red Oleanders*, and the poetry collections *Fireflies* and *Gitanjali*. In 1913, he became the first Asian to win the Nobel Prize in literature.

Answer: Rabindranath Tagore

c) This Bengali author is known mainly thanks to director Satyajit Ray's adaptation of his novels *Pather Panchali*, *Aparajito* and *The World of Apu* into the *Apu* trilogy.

Answer: Bibhuti Bhushan Banerjee

14. What do you do if you can't come up with a song? Rehash old song titles and characters. Answer the following FTPE.

a) This song off the *White Album* starts with the lyric "I told you about Strawberry Fields where nothing is real" in addition to mentioning "The Fool on the Hill" and "I Am The Walrus."

Answer: Glass Onion

b) In this song off his 1998 self-titled album, John Mellencamp provides a sequel to his clapping hit "Jack and Diane."

Answer: Eden is Burning

c) Bon Jovi dedicates "It's My Life" to the two protagonists of "Living on a Prayer" "who never backed down." FFP each, name them.

Answer: Tommy and Gina

15. Identify these theorems of real analysis from their statements, FTP each:

a) If f is a continuous function on the interval from a to b , then f attains each value between $f(a)$ and $f(b)$.

Answer: Intermediate value theorem

b) Any sequence of points in a compact set has a convergent subsequence.

Answer: Bolzano-Weierstrass theorem

c) Any closed and bounded subset of Euclidean space is compact.

Answer: Heine-Borel theorem

16. Identify these Shakespearean maidens:

a) F5P, she is both beloved and smothered by Othello in the play of that name.

Answer: Desdemona

b) FTP, this woman is in love with Demetrius, despite his being engaged to the daughter of Egeus in *A Midsummer Night's Dream*.

Answer: Helena

c) F15P, although she had only left the nunnery to plead for her brother's life, that doesn't stop Angelo from attempting to sleep with this sister of Claudio in *Measure for Measure*.

Answer: Isabella

17. Name these terms from cultural anthropology, for ten points each:

a. This is the belief in a near-infinite number of spirits that dwell in places and in animals or wander the earth. The term was introduced in *Primitive Culture* by Edward Tylor.

Answer: animism

b. This is a marriage practice in which a woman has multiple husbands.

Answer: polyandry

c. This is a perspective in ethnography that uses the concepts and categories that are relevant and meaningful to the culture under analysis. It is contrasted with the "etic" perspective

Answer: emic

18. Identify these Gilded Age Supreme Court decisions FTPE.

a) This 1877 case held that states could not deprive individuals of property without due process of law under the 14th amendment; the specific property in question was grain elevators.

Ans: Munn v. Illinois

b) The question in this 1873 decision was to what extent states could use the police power to regulate commerce. Plaintiffs brought both 13th and 14th amendment claims.

Ans: Slaughterhouse cases or The Butchers' Benevolent Association of New Orleans v. The Crescent City Live-Stock Landing and Slaughter-House Company

c) This 1895 decision by Chief Justice Melville Fuller dealt with the formation of a sugar monopoly in violation of the Sherman Anti-Trust Act.

Ans: United States v. E.C. Knight Co.

19. Answer these questions about Fenrir, also known as the Fenris-wolf, for ten points each.

a) Along with Hel, this venomous creature was Fenrir's full sibling.

Answer: Midgard serpent (or Midgardsorm or Jormungandr)

b) The gods chain Fenrir with which magic ribbon?

Answer: Gleipnir

c) Before being subdued by Gleipnir, Fenrir bites off the hand of this god.

Answer: Tyr

20. Identify these taxonomic divisions of plants, FTP each.

a) Until recently liverworts and hornworts were classified as part of this division. It is primarily comprised of non-vascular plants, and includes mosses.

Answer: Bryophyta or bryophytes

b) This division of gymnosperms includes pines, firs, and redwoods.

Answer: Coniferophyta or conifers

c) This division of gymnosperms has only three genera, of which two are extinct. The only extant species in the other genus is named *biloba* and is regarded as a living fossil.

Answer: Ginkgophyta

21. Identify these things related to Napoleonic Europe FTPE.

a) After the battle of Austerlitz and the Treaty of Pressburg nearly all German states except Prussia and Austria were consolidated into this new political unit.

Answer: Confederation of the Rhine

b) This 1797 agreement ended the war with Austria begun in 1792 and left France at war with Britain alone.

Answer: Treaty of Campo Formio

c) In this war Napoleon sought to place and keep his brother Joseph on the throne of France's neighbor across the Pyrenees.

Answer: Peninsular War